

Ecological Comments on the Department of the Interior's Feasibility Study Assessment for the Rolling Knolls Landfill Site

The document provides a summary of the contaminant concentrations found in soil at the U.S. Fish and Wildlife Service (USFWS) portion of the Rolling Knolls Landfill Superfund site. It is indicated that the Draft Feasibility Study (FS) for the site did not address ecological risks. However, the document fails to mention the fact that a Residual Ecological Risk Assessment was conducted as part of the FS to determine the potential for any ecological risk to remain after each of the proposed remedial alternatives would be applied.

The document does not include a discussion regarding the fact that the USFWS were involved in the Ecological Risk Assessment and the Remedial Investigation (RI) processes. Additionally, any comments from the USFWS were addressed and incorporated into each document. Therefore, it is unclear why there are new issues regarding the Baseline Ecological Risk Assessment (BERA) or the RI at this stage of the process.

It is noted that this assessment contradicts the FS premise that the results of the BERA indicate that exposures to contaminants of potential concern (COPECs) in the environmental media at the site do not pose an ecological concern for most of the evaluated receptors. There were ecological risks calculated in the BERA associated with soil exposure to the vermivorous birds and mammals. As stated previously, the Residual Ecological Risk Assessment was conducted to determine if the remedial alternatives would address ecological risks.

The assessment of ecological risk in this document appears to be a limited evaluation which only involves a subset of the data included in the BERA for the site. This evaluation of ecological risk is primarily based on exceedences of conservative screening levels, whereas the BERA includes various lines of evidence (e.g., toxicity testing, bioavailability, biota tissue levels, dietary exposure) to determine the potential risks associated with the contamination related to the site. For example, only low concentrations of lead were found in the tissue of the small mammals collected from the site could be considered as a potential line of evidence to evaluate bioavailability. Additionally, observational evidence (e.g., abundance of burrows, no evidence of external pathology in the small mammals that were collected, tracks and scat throughout the site which may suggest abundant raccoon and deer) found during BERA field work can be included in the assessment of risk. Risk management issues such as the destruction of habitat can be factored into the potential remedial alternatives of the FS.

One of the issues raised regarding the BERA is that the sediments were not completely characterized. For example, it is noted that one sample (SED017) is a considerable distance from the next downstream location. However, SED017 was positioned away from the influence of the site as it is considered a background location. Also, it is indicated in the document that if the proposed soil alternatives were modified a certain way, additional sediment characterization would not be necessary. Therefore, it appears that the sediment concerns are not significant.

It is noted that to fully align with CERCLA the remedial alternative selected should include removal of waste and contaminated soils to an appropriate level of protectiveness to wildlife. However, the removal of waste that is not demonstrated to be hazardous may not align with CERCLA.

It is indicated that the BERA grouped all surface soils together on a Site-wide basis and this grouping was carried into the FS. It is stated that this approach didn't include considerations for the Refuge's sensitivities. It is unclear how the process needs to be altered to address the Refuge's sensitivities. As indicated earlier the USFWS were involved in the BERA and any USFWS comment were addressed appropriately.

It is noted that there are two remedial alternatives (3 & 5) that include capping and only remedial alternative 5 (capping the entire landfill) would reduce impairment. The excavation and offsite disposal alternative (4) is dismissed. Based on the Residue Ecological Risk Assessment, remedial alternatives 3 and 4 would result in the reduction of ecological risk.

Table 1 includes multiple soil benchmarks including background values and compares them to concentrations of lead found in the surface soil of the landfill. The exceedance of background levels may not necessarily indicate ecological risk. The EPA's Ecological Soil Screening Levels (Eco-SSLs) in this table are screening levels that should be used to identify contaminants of potential concern to be further evaluated in a site-specific BERA and not be used as cleanup levels. Estimated benchmark values were included in the table for the short-tailed shrew and the American robin. However, it is unclear if these estimates are daily doses of contaminants based on incidental soil ingestion and diet intake. It may not be useful to compare daily dose benchmarks to soil contaminant concentrations.